Publications

Book Reviews

Liposomes, edited by M. J. Ostro (Marcel Dekker Inc., 270 Madison Ave., New York, NY 10016, 1983, 397 pp., $58.75 U.S. and Canada, 20% higher elsewhere).

This book is divided into 7 chapters: "Liposome Preparation: Methods and Mechanisms" by Deamer and Uster; "Interactions of Proteins and Drugs with Liposomes" by Juliano; "Liposome-Cell Interactions in Vitro" by Huang; "Liposome Reconstitution: Applications in Cell Physiology" by Malathi; "Liposomes as a Tool in Molecular Biology: A Comparison to Other Methodologies" by Ostro and Giacomoni; "Immunologic Aspects of Liposomes" by Alving and Richards; and "Therapeutic Applications of Liposomes" by Mayhew and Papahadjopoulos. It also includes an introduction by Bangham. Use of liposomes as a targeted drug delivery system may one day become a reality. At this time, in vitro diagnostic tests based on liposomes appear certain to soon be a reality. Speculating on where all of that pure phospholipid is going to come from is very interesting. When one reads about the use of glycolipids as liposomal antigens, this sounds logical, but where does one get production quantities of paragloboside, Forssman antigen or ganglioside GD_{1b}?

Ostro (The Liposome Company) is involved in the commercial development of products based on liposomes and has drawn together chapters from noted experts in the field. The field has gone beyond the stage of being of purely academic interest. If viable products emerge, the area is of enormous potential interest to the oil and fat industries.

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Phospholipids, New Comprehensive Biochemistry, Vol. 4, edited by J. N. Hawthorne and G. B. Ansell (Elsevier Science Publishing Co. Inc., 52 Vanderbilt Ave., New York, NY 10017, and Elsevier Science Publishers, PO Box 211, Amsterdam, The Netherlands, 1982, 484 pp., $59.50).

The present volume is said to derive from the section on chemistry of phospholipids in Volume 6 (1965) and the volume on lipid metabolism (Volume 18, 1970) in the Florkin and Stotz series "Comprehensive Biochemistry." The structural role of phospholipids in membranes is covered in Volume 3 of the current series. Hawthorne and Ansell are familiar to lipid chemists as authors and editors of several previous books on phospholipids, including "The Phospholipids–Chemistry, Metabolism and Function" (Elsevier, 1964) and, with R.M.C. Dawson, "Form and Function of Phospholipids" (Elsevier, 1973). A comprehensive book on this subject has not appeared in a while. Several alternatives, Wakil's "Lipid Metabolism" (Academic Press, 1970) and "Biochemistry of Lipids I and II," edited by Kornberg and Phillips (University Park Press, 1974, 1977), are relatively old, whereas others, such as "Lipid Metabolism in Mammals 1 & 2" (Plenum Press, 1977), edited by Snyder, "The Biochemistry of Plants, Vol. 4, Lipids: Structure and Function" (Academic Press, 1980), edited by Stumpf, and "Lipid Biochemistry of Fungi and Other Organisms," by Weete (Plenum, 1980), cover only selected portions of the field.

PE, PS and PC are covered in one chapter by Ansell and Spanner. Horrocks and Sharman review plasmologens and ethers and Hori and Nozawa discuss phosphonolipids. Authors for other chapters include: Sphingomyelin–Boenholz and Gatt; PG, DPG and bis(monoacylglycero) phosphate–Hostetler; PI–Hawthorne; Phosphatide Metabolism–Brindley and Sturton; Phospholipid Transfer Proteins–Kader, Douady and Mazliak; Phospholipases–Vanden Bosch; Mechanism of Phospholipase A_2–Slotboom, Verheij and Hass; and Genetic Control of PL Bilayer Assembly–Raetz. In general, biosynthesis is pretty much taken for granted and emphasis has moved to regulation and function. This is the basis for the inclusion of separate chapters on PL exchange proteins and genetic control of bilayer assembly. This latter chapter is largely devoted to PL synthesis in *E. coli* mutants but touches briefly on choline and inositol auxotrophs of fungi and yeasts. *E. coli* strains from the Clarke and Carbon collection are known that overproduce enzymes involved in PL biosynthesis.

This book provides a very solid substantial coverage of the subject and approximately 2,700 references are included. The only deficiency seems to be the Subject Index. It is hard to believe that phospholipid turnover is discussed only on page 334, sphingosine is mentioned only on page 130, lipoproteins is not an index entry and the only entry under fatty acids is to fatty acid synthesis on page 450. This book definitely belongs in the personal library of every lipid biochemist.

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New Publications

Plant Proteins for Human Food, edited by C.E. Bodwell and L. Petit, Nutrition Sciences Series, Martinus Nijhoff/Dr. W. Junk Publishers, PO Box 566/2501 CN, The Hague, The Netherlands, 1983, 471 pp., 125,000 Dutch guilders, U.S. $54.50. Proceedings of a European Congress held Oct. 5-7, 1981, Nantes, France.

Excited States of Biopolymers, edited by Robert F. Steiner, Plenum Press, Plenum Publishing Corp., 233 Spring St., New York, NY 10013, 1983, 258 pp. $39.50 U.S. and Canada, 20% higher elsewhere.

Fats for the Future, the proceedings of the International Conference on Oils, Fats and Waxes, held in Auckland, New Zealand, in 1983. Edited by S. G. Brooker. A. Renwick, S. F. Hannan and L. Eyres, published by Duromark Publishing, P.O. Box 6989, Auckland, New Zealand; 250 pp., 1983; US $20 plus US $5 for postage. More than 5 dozen papers presented as part of the meeting held Feb. 13-17, 1983.

Oil World, 25th Anniversary Issue, I.S.T.A. Mielke & Co., POB 90 08 03, 2100 Hamburg 90, West Germany, 1983, 150 pp., 260 DM (surface postage), air-mail postage extra. Extensive data on fats and oils production and trade for the past 25 years, forecasts for next 25 years,